AMENDMENTS TO THE CLAIMS

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended) A solar control article, comprising:

a substrate having a surface;

a coating over the surface to provide a coated article having a visible light transmittance in the range of about 50 to about 70%, a shading coefficient less than about 0.33 and a reflectance less than about 30%, the coating comprising:

a first antireflective layer over at least a portion of a substrate surface;

a first infrared reflective layer over at least a portion of the first antireflective layer;

a second antireflective layer ~~deposited~~ over at least a portion of the first infrared reflective layer; ~~and~~

a second infrared reflective layer having a thickness ranging from 159 to 257 angstroms ~~deposited~~ over the second antireflective layer~~, wherein the second infrared reflective layer has a thickness of about 159 to about 257 angstroms~~; and

a third antireflective layer having a thickness ranging from 60 to 273 angstroms over the second infrared reflective layer.

Claim 2 (canceled)

Claim 3 (currently amended) The article as claimed in claim 1~~2~~, including a first primer layer deposited over the first infrared reflective layer and a second primer layer deposited over the second infrared reflective layer.

Claim 4 (currently amended) The article as claimed in claim 1~~2~~, wherein the antireflective layers include metal-oxide films selected from one or more metal oxides, oxides of metal alloys, doped metal oxides and mixtures thereof.

Claim 5 (currently amended) The article as claimed in claim 1~~2~~, wherein the one or more metal oxides are selected from zinc oxide, titanium oxide, hafnium oxide, zirconium oxide, niobium oxide, bismuth oxide, indium oxide, tin oxide and mixtures thereof.

Claim 6 (previously presented) The article as claimed in claim 4, wherein the metal alloys are selected from the group consisting of zinc stannate, tin alloys, fluorine doped tin, antimony doped tin, and indium-tin alloys.

Claim 7 (currently amended) The article as claimed in claim 1~~2~~, wherein at least one of the antireflective layers comprises a plurality of antireflective films.

Claim 8 (currently amended) The articles as claimed in claim 1~~2~~, wherein the infrared reflective films include at least one metal selected from the group consisting of gold, copper, platinum, and silver and mixtures thereof.

Claim 9 (currently amended) The article as claimed in claim 1~~2~~, wherein the first antireflective layer has a thickness of about 272 to about 332 angstroms, the second antireflective layer has a thickness of about 198 to about 836 angstroms and the third antireflective layer has a thickness of about 60 to about 273 angstroms.

Claim 10 (currently amended) The article as claimed in claim 1~~2~~, wherein the first infrared reflective layer has a thickness of about 86 to about 269 angstroms.

Claim 11 (original) The article as claimed in claim 3, wherein the first and second primer layers each have a thickness of about 15 to about 30 angstroms.

Claim 12 (currently amended) The article as claimed in claim 1~~2~~, wherein the thickness of the second infrared reflective layer is about 50 to about 100% greater than the thickness of the first infrared reflective layer.

Claim 13 (currently amended) The article as claimed in claim 1~~2~~, including a protective overcoat deposited over the third antireflective layer.

Claim 14 (original) The article as claimed in claim 1, wherein the substrate is selected from the group consisting of glass, plastic and ceramic.

Claim 15 (original) The article as claimed in claim 1, wherein the article is an insulated glass unit.

Claim 16 (previously presented) A solar control coated article, comprising:

a transparent substrate having a surface;

a coating over the surface to provide a coated article having a visible light transmittance in the range of about 50 to about 70%, a shading coefficient less than about 0.33 and a reflectance less than about 30%, the coating comprising:

a first antireflective layer over a substrate surface, wherein the first antireflective layer has a thickness of about 272 to about 332 angstroms;

a first infrared reflective layer over the first antireflective layer, wherein the first infrared reflective layer has a thickness of about 86 to about 269 angstroms;

a first primer layer deposited over the first infrared reflective layer, wherein the primer layer has a thickness of about 15 to about 30 angstroms;

a second antireflective layer deposited over the first primer layer, wherein the second antireflective layer has a thickness of about 198 to about 836 angstroms;

a second infrared reflective layer deposited over the second antireflective layer, wherein the second infrared reflective layer has a thickness of about 159 to about 257 angstroms;

a second primer film deposited over the second infrared reflective layer, wherein the primer layer has a thickness of about 15 to about 30 angstroms; and

a third antireflective layer deposited over the second primer layer, wherein the third antireflective layer has a thickness of about 60 to about 273 angstroms.

Claim 17 (original) The article as claimed in claim 16, wherein the article has a substantially neutral color.

Claim 18 (previously presented) The article as claimed in claim 16, wherein the article has a shading coefficient of less than about 0.32 and an external reflectance less than about 20%.

Claim 19 (canceled)

Claim 20 (original) The article as claimed in claim 16, wherein the antireflective films include a metal oxide film selected from the group consisting of metal oxides, metal alloys, doped metal oxides and mixtures thereof.

Claim 21 (original) The article as claimed in claim 20, wherein in the metal oxides are selected from the group consisting of zinc oxide, titanium oxide, hafnium oxide, zirconium oxide, niobium oxide, bismuth oxide, indium oxide, tin oxide and mixtures thereof.

Claim 22 (original) The article as claimed in claim 20, wherein the metal alloys are selected from the group consisting of zinc stannate, fluorine doped tin, antimony doped tin, and indium-tin alloys.

Claim 23 (original) The article as claimed in claim 20, wherein the doped metal oxides are selected from the group consisting of antimony doped tin oxide and indium doped tin oxide.

Claim 24 (original) The article as claimed in claim 16, wherein the first infrared reflective layer includes a metal from the group consisting of gold, copper, platinum, and silver and mixtures thereof.

Claim 25 (original) The article as claimed in claim 16, where at least one of the first, second, or third antireflective layers includes a plurality of antireflective films.

Claim 26 (original) The article as claimed in claim 16, wherein the primer layer includes titanium.

Claim 27 (original) The article as claimed in claim 16, including a protective, metal containing overcoat deposited over the third antireflective layer.

Claim 28 (original) The article as claimed in claim 16, wherein the article is an insulated glass unit.

Claims 29–31 (canceled)

Claim 32 (currently amended) A method of making a solar control article, comprising the steps of:

providing a substrate having a surface;

depositing a coating over at least a portion of the surface of the substrate to provide a coated article having a visible light transmittance in the range of about 50 to about 70%, a shading coefficient less than about 0.33 and a reflectance less than about 30%, the depositing step comprising the steps of:

depositing a first antireflective layer over at least a portion of a substrate surface;

depositing a first infrared reflective layer over at least a portion of the first antireflective layer;

depositing a second antireflective layer deposited over at least a portion of the first infrared reflective layer; ~~and~~

depositing a second infrared reflective layer deposited over at least a portion of the second antireflective layer, wherein the second infrared reflective layer has a thickness of about 159 to about 257 angstroms; and ~~.~~

depositing a third antireflective layer having a thickness ranging from 60 to 273 angstroms over the second infrared reflective layer.

Claim 33 (previously presented) The method as claimed in claim 32, further comprising depositing a third antireflective layer over the second infrared reflective layer.

Claim 34 (original) The method as claimed in claim 32, including depositing a first primer film over the first infrared reflective film and depositing a second primer film over the second infrared reflective film.

Claim 35 (original) The method as claimed in claim 32, wherein the article has a substantially neutral color.

Claim 36 (original) The article as claimed in claim 32, wherein the antireflective layer depositing step is practiced by depositing a plurality of antireflective films to form the at least one antireflective layer.

Claim 37 (previously presented) The method as claimed in claim 33, wherein the first infrared reflective film has a thickness of about 86 to about 269 angstroms.

Claim 38 (original) The method as claimed in claim 34, wherein the first and second primer films each have a thickness of about 15 to about 20 angstroms.

Claim 39 (previously presented) The article as claimed in claim 4, wherein the metal-oxide film is zinc stannate film.

Claim 40 (previously presented) The article as claimed in claim 15 wherein the insulated glass unit has a reflectance selected from luminous exterior or interior reflectance of less than about 30%.

Claim 41 (previously presented) The article as claimed in Claim 15, wherein the insulated glass unit has a pair of spaced-apart first and second at least semitransparent substrates separated by one or more spacers wherein the substrates and spacers are sealed to form an interior gap which may be filled with a selected atmosphere, selected from argon or air and wherein at least one of the substrates has on the surface facing the gap at least one antireflective layer deposited over the substrate surface and at least one infrared reflective film deposited over the at least one antireflective layer.

Claim 42 (previously presented) The article as claimed in Claim 15, wherein the insulated glass unit has i) a pair of spaced-apart first and second at least semitransparent substrates separated by one or more spacers wherein the substrates and spacers are sealed to form an interior gap which may be filled with a selected atmosphere, selected from argon or air; and ii) one or more polymeric films placed in the gap wherein at least one of the polymeric films is the coated article.

Claim 43 (previously presented) The article as claimed in Claim 15 having a U value in the range of 0.24 to 0.30.

Claim 44 (previously presented) The article as claimed in claim 1 wherein the coated article has a temporary protective film.

Claim 45 (previously presented) The article as claimed in claim 7, wherein the plurality of antireflective films comprises a zinc stannate film and a zinc oxide film.

Claim 46 (previously presented) The article as claimed in claim 45, wherein the zinc oxide film is deposited over the zinc stannate film wherein the zinc stannate film is sputtered from a zinc-tin cathode and the zinc oxide film is deposited from a zinc cathode having 10 wt% or less of tin and the zinc oxide film has a thickness from 20 to 70 Angstroms.

Claim 47 (previously presented) The solar control article as claimed in claim 15 wherein (i) the solar control article is an insulated glass unit having a first pane and a second pane space from the first pane, (ii) the substrate of the coated article is a clear glass substrate, (iii) the coated article is the first pane, (iv) the second pane is a clear glass sheet and (v) the insulating unit has a blue or blue-gray color in transmission.

Claim 48 (currently amended) A solar control article, comprising:

a substrate having a surface; and

a coating over the surface to provide a coated article having a LCS defined as the percent of visible light transmittance expressed as a decimal divided by the shading coefficient that is equal to or greater than 1.86, the coating comprising:

~~depositing~~ a first antireflective layer over at least a portion of a substrate surface;

~~depositing~~ a first infrared reflective layer over at least a portion of the first antireflective layer;

~~depositing~~ a second antireflective layer deposited over at least a portion of the first infrared reflective layer;

~~depositing~~ a second infrared reflective layer deposited over at least a portion of the second antireflective layer, wherein the second infrared reflective layer has a thickness of about 159 to about 257 angstroms, and~~.~~

a third antireflective layer having a thickness ranging from 60 to 273 angstroms over the second infrared reflective layer.